SERVICE MANUAL

(DOMESTIC)

IMPINGER CONVEYOR OVENS

MODEL 1450,1451

WITH PUSH BUTTON CONTROLS

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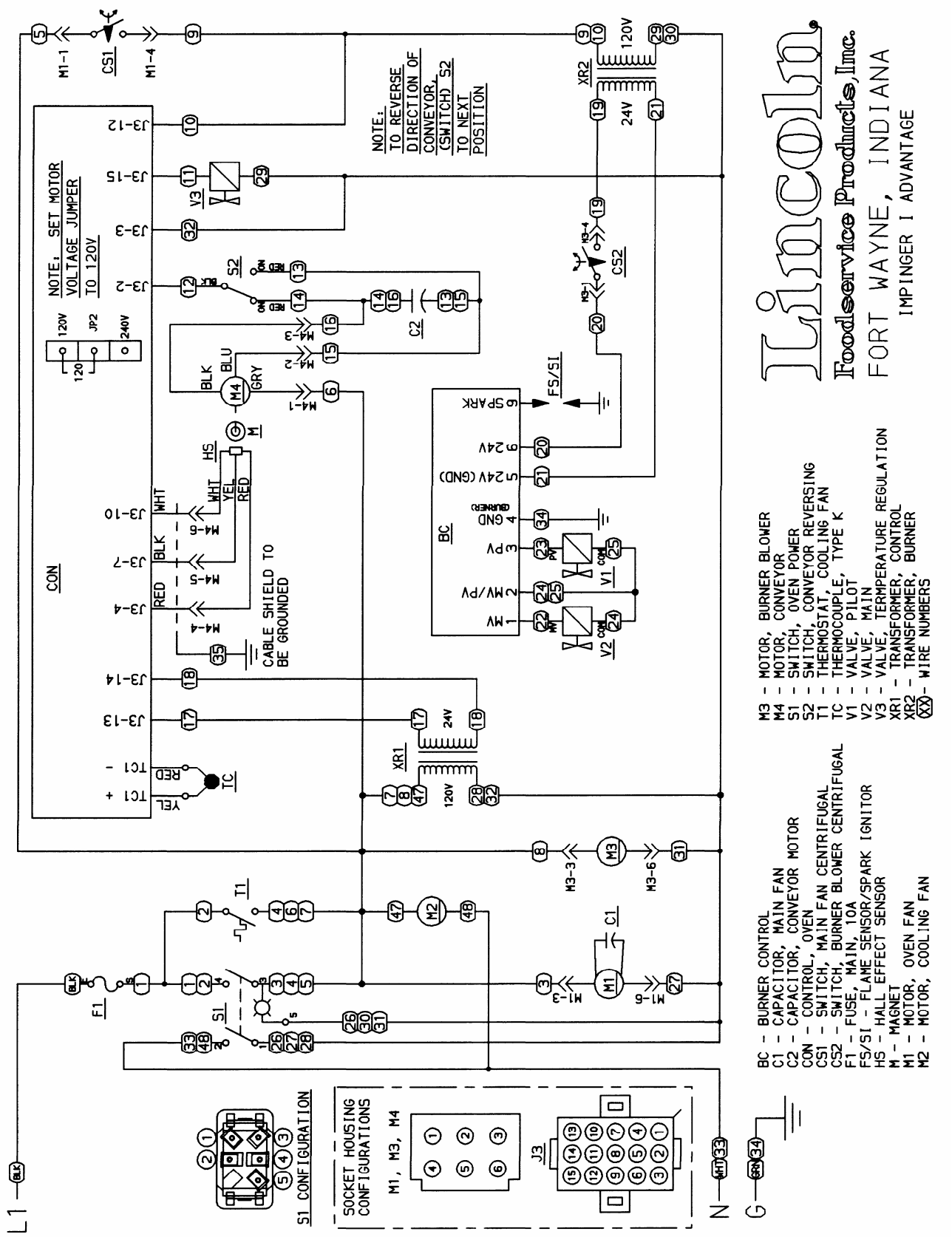
SEQUENCE OF OPERATION
IMPINGER ADVANTAGE
SERIAL NUMBER N28654 AND ABOVE
(OVENS WITH PUSH BUTTON CONTROLS)

MODEL 1450	120VAC	60 HZ.	NAT. GAS
MODEL 1451	120VAC	60 HZ.	LP GAS

POWER SUPPLY	Electrical power is supplied to the oven by a three conductor cordset. Voltage from the black conductor to the white conductor is 120VAC. The white conductor is neutral. The green conductor is ground.
CONTROL BOX AUTO COOL DOWN	When the temperature in the control box reaches 120°F ± 3° (48.9°C ± 1.7°C), the cooling fan thermostat will switch power to the control box cooling fan. The thermostat will interrupt power to the cooling fan when the control box temperature falls to 100°F ± 3° (37.0°C ± 1.7°C).
MAIN FAN CIRCUIT	Electrical power is permanently supplied, through a 10 Amp fuse, to the normally open contacts of the oven power switch. Power is also supplied to the normally open control box cooling fan thermostat. Closing the oven power switch supplies 120VAC to the main fan motor and to the control box cooling fan. Closing the oven power switch also supplies 120VAC to the burner blower motor, the primary of the oven control transformer and to the centrifugal switch of the main fan motor.
BURNER CIRCUIT	Closing the oven power switch supplies 120VAC to the burner blower motor and to the normally open centrifugal switch of the main fan motor. As the main fan motor reaches approx.900 RPM, the centrifugal switch closes supplying 120VAC to the oven control and to the primary of the burner transformer. The transformer secondary supplies 24VAC, through the centrifugal switch of the burner blower motor, to the ignition control.
IGNITION CONTROL	When the ignition control is supplied with 24VAC, the pilot valve and spark igniter are energized. Ignition should now occur. After the pilot flame is proven, the main valve is energized.
TEMPERATURE CONTROL	Closing the oven fan switch supplies 120VAC to the primary of the control transformer and, through the centrifugal switch of the main fan motor, to the oven control. Secondary voltage, 24VAC, is supplied to the oven control. The oven control is set to desired temperature. The thermocouple will provide varying millivolts to the oven control. The oven control supplies 120VAC to the temperature regulation valve at intermittent intervals to maintain the desired temperature. The display on the oven control will indicate when the temperature regulation valve is energized. NOTE: The display also indicates oven temperature.
CONVEYOR DRIVE	Closing the oven power switch supplies 120VAC to the conveyor motor and to the primary of the control transformer. Secondary voltage, 24VAC, is supplied to the oven control. Setting the oven control to the desired time outputs voltage, through a reversing switch, to the conveyor motor. NOTE: The conveyor system uses a hall effect sensor and magnet to prove operation of the conveyor motor. If the conveyor motor is not running, “BELT JAM” is indicated on the display.

SCHEMATIC DIAGRAM
MODEL 1450, 1451
SERIAL NUMBER N28654 AND ABOVE


Lincoln
Foodservice Products, Inc.
FORT WAYNE, INDIANA
IMPINGER I ADVANTAGE
NOTE: SET MOTOR VOLTAGE JUMPER TO 120V
NOTE: TO REVERSE DIRECTION OF CONVEYOR, (SWITCH) S2 TO NEXT POSITION
CABLE SHIELD TO BE GROUNDED
SOCKET HOUSING CONFIGURATIONS
M1, M3, M4
J3
S1 CONFIGURATION
L1
N
G
BC - BURNER CONTROL
C1 - CAPACITOR, MAIN FAN
C2 - CAPACITOR, CONVEYOR MOTOR
CON - CONTROL, OVEN
CS1 - SWITCH, MAIN FAN CENTRIFUGAL
CS2 - SWITCH, BURNER BLOWER CENTRIFUGAL
F1 - FUSE, MAIN, 10A
FS/S1 - FLAME SENSOR/SPARK IGNITOR
HS - HALL EFFECT SENSOR
M - MAGNET
M1 - MOTOR, OVEN FAN
M2 - MOTOR, COOLING FAN
M3 - MOTOR, BURNER BLOWER
M4 - MOTOR, CONVEYOR
S1 - SWITCH, OVEN POWER
S2 - SWITCH, CONVEYOR REVERSING
T1 - THERMOSTAT, COOLING FAN
TC - THERMOCOUPLE, TYPE K
V1 - VALVE, PILOT
V2 - VALVE, MAIN
V3 - VALVE, TEMPERATURE REGULATION
XR1 - TRANSFORMER, CONTROL
XR2 - TRANSFORMER, BURNER
(XX) - WIRE NUMBERS

TROUBLESHOOTING GUIDE
IMPINGER ADVANTAGE GAS OVENS
SERIAL NUMBER N28654 AND ABOVE
(OVENS WITH PUSH BUTTON CONTROLS)

SYMPTOM	POSSIBLE CAUSE	EVALUATION
Oven fan will not run	Incoming power supply	Check circuit breaker, reset if required. Check power plug to be sure it is firmly in receptacle. Measure incoming power, call power co. if needed.
	Fuse, 10 Amp	Check, replace if necessary.
	Fuse holder	Check, replace if necessary.
	Switch, oven power	Check for 120VAC supply to switch. If no voltage is present, trace wiring back to fuse holder. Check continuity between switch terminals. Replace switch as needed.
	Motor, main fan	Check for 120VAC supply to the motor. If no voltage is present, trace wiring back to the switch. Check motor for opens, shorts or grounds. WITH POWER OFF: Turn fan blade to check for locked rotor.
No control box cooling	Incoming power supply	Check circuit breaker, reset if required. Check power plug to be sure it is firmly in receptacle. Measure incoming power, call power co. if needed.
	Fuse, 10 Amp	Check, replace if necessary.
	Fuse holder	Check, replace if necessary.
	Switch, oven power	Check for 120VAC supply to switch. If no voltage is present, trace wiring back to fuse holder. Check continuity between switch terminals. Replace switch as needed.
	Cooling fan	Check for 120VAC supply to the cooling fan. If no voltage is present, trace wiring back to the oven power switch. If voltage is present and motor does not run, check for opens, shorts or grounds. WITH POWER OFF: Check for locked rotor.
No automatic control box cooling	Incoming power supply	Check circuit breaker, reset if required. Check power plug to be sure it is firmly in receptacle. Measure incoming power. Call power co. if needed.
	Cooling fan thermostat	Check cooling fan thermostat (thermostat closes at 120°F and opens at 100°F). With cooling fan thermostat pre-heated, check for continuity. If thermostat is open, replace cooling fan thermostat.
Control box cooling fan continues to run	Cooling fan thermostat	See “Cooling fan thermostat” (NOTE: Thermostat will remain closed if control box temperature remains above 120°F.
Oven will not heat	Main fan	If not operating, refer to “Oven fan will not run”.
	Gas supply	Check for adequate gas supply to oven.
	Centrifugal switch of main fan motor	Check for 120VAC at wire #5 (input to centrifugal switch, located at 6-pin connector inside motor cover near main fan motor) to neutral. If no voltage is present, trace wiring back to oven power switch. If voltage is present, check for 120VAC at wire #9 (output of centrifugal switch) to neutral. If no voltage is present at wire #9, and the motor is running, replace the main fan motor.
	Burner blower motor	Check for 120VAC supplied to burner blower motor. If no voltage is present, trace wiring back to primary of control transformer. If voltage is present and motor is

		not running, check for opens, shorts or grounds. WITH POWER OFF: Turn motor to check for locked rotor. Replace burner blower motor as needed.
	Burner transformer	Check for 120VAC supplied to primary of burner transformer. If no voltage is present, trace wiring back to centrifugal switch of main fan motor. If voltage is present, check for 24VAC supply at transformer secondary. If there is primary voltage but no secondary voltage, replace burner transformer.
	Centrifugal switch of burner blower motor	Check for 24VAC at motor connector, wire #19 (input to centrifugal switch) to neutral. If no voltage is present, trace wiring back to burner transformer. If voltage is present, check for 24VAC at wire #20 (output of centrifugal switch) to neutral. If no voltage is present at wire #20 and motor is running, replace burner blower motor.
	Ignition control	Check for 24VAC supply to the ignition control. If no voltage is present, trace wiring back to centrifugal switch of burner blower motor. If voltage is present, check for 24VAC at pin #3 and ground (pilot valve). NOTE: The Honeywell ignition control has a 30 second pre-purge (time delay) built in. If voltage is not present, replace ignition control. If the pilot valve is energized, check to see that the high voltage igniter circuit is also energized. To check, disconnect the igniter lead from the ignition control.
	No pilot flame	If the ignition control is supplied with 24Vac and the pilot valve (internal to valve assembly) and igniter circuits are energized, visually check for pilot flame. This may be done by opening the small inspection door on the end of the burner, or by opening the main oven door and looking under the lower finger housings on the right side of the oven. If no pilot flame is visible, check the pilot shut-off valve.
	Pilot shut-off valve	Check to see that the pilot shut-off valve is open (shut-off valve is located between valve assembly and burner).
	Pilot tube	Check for gas pressure at the pilot tube. Disconnect pilot tube at burner and connect a manometer to pilot tube. If no gas pressure is present during ignition, check for blockage in pilot tube or pilot shut-off valve. If these are clear, and there is gas supplied to the oven, replace the gas valve.
	Pilot orifice	If there is gas pressure at the pilot tube, check the pilot orifice for obstructions. Replace as needed.
	Burner igniter	Check the burner igniter head for any obstructions, also check for frayed or broken wire. Check spark gap (gap should be .100 to .125 inch). If there is visible damage, replace burner igniter.
	NOTE: Flame should be on at this time	
Pilot flame, but no main flame	Control transformer	Check for 120VAC supply to the primary of the control transformer. If no voltage is present, trace wiring back to the oven power switch. If voltage is present, check foe 24VAC at the transformer secondary. If there is primary voltage, but no secondary voltage, replace control transformer.
	Oven control	Check for 24VAC supply to oven control. If no voltage is present, trace wiring back to control transformer. If 24VAC is present, check for a read-out on the display. If there is 24VAC supplied, but there is no read-out on

		the display, replace oven control. If there is a read-out on the control, set the control to maximum temperature (see Installation operations manual for temperature adjustment). With the control set at maximum temperature, check for 120VAC at the temperature regulation valve. If there is voltage at the temperature regulation valve, proceed to “Temperature regulation valve” for next check. If there is no voltage at the temperature regulation valve, trace wiring back to the oven control. If there is no voltage output at the oven control, check the read-out on the oven control. If the control reads “PROBE FAIL”, this indicates that the thermocouple has failed or become disconnected from the oven control.
	Thermocouple	Check to be sure that the thermocouple is securely connected to the oven control. If the thermocouple is connected to the oven control, and the control indicates “PROBE FAIL”, disconnect the thermocouple from the oven control and measure the resistance of the thermocouple. The thermocouple should read approx. 11Ω. If these readings are not achieved, replace the thermocouple. If these readings are correct, proceed.
	Oven control	If the thermocouple checks good, but the oven control display indicates that there is a thermocouple failure, replace the oven control. If the oven control indicates a temperature reading, but the oven will not heat, proceed.
	Thermocouple	WITH POWER ON AND THERMOCOUPLE ATTACHED TO THE OVEN CONTROL: Measure the DC millivolt output of the thermocouple. Refer to the thermocouple chart (located in the “Removal” section of the manual) for proper millivolt readings. If these readings are not achieved, replace thermocouple.
	Oven control	If the thermocouple checks good, but there is no 120VAC output to the temperature regulation valve, replace the oven control. If there is 120VAC output to the temperature regulation valve, proceed.
	Temperature regulation valve	Check for 120VAC supplied to the temperature regulation valve. If voltage is present, listen for valve to open and close. Also check for opens or shorts in the operating coil. Replace temperature regulation valve as needed.
Intermittent heating	Thermal/overload of main fan and burner blower motors	The main fan motor and burner blower motor are equipped with internal thermal protection and will cease to operate if overheating occurs. As the motors overheat and then cool, this will cause the heating system to cycle on and off intermittently. Improper ventilation or lack of preventive maintenance may cause this problem. Also, most of the problems listed under “Oven will not heat” can cause intermittent failure.
Conveyor will not run	Incoming power supply	Check circuit breaker, reset if required. Check power plug to be sure it is firmly in receptacle. Measure incoming power, call power co. if needed.
	Fuse, 10 Amp	Check, replace if necessary.
	Fuse holder	Check, replace if necessary.
	Switch, oven power	Check for 120VAC supply to switch. If no voltage is present, trace wiring back to fuse holder. Check continuity between switch terminals. Replace switch as needed.

	Control transformer	Check for 120VAC supply to the primary of the control transformer. If no voltage is present, trace wiring back to the oven power switch. If voltage is present, check foe 24VAC at the transformer secondary. If there is primary voltage, but no secondary voltage, replace control transformer.
	Conveyor motor	Check for 120VAC supply to conveyor motor at wire #6 to neutral. If no voltage is present, trace wiring back to oven power switch. If voltage is present and motor will not run, check the motor windings for opens or shorts. WITH POWER OFF: Check the motor windings as follows: Grey to black - 38Ω approx. Grey to blue - 38Ω approx. Blue to black - 75Ω approx. If any of the above fails, replace conveyor motor.
	Capacitor, conveyor motor	Check for shorts or grounds. Replace capacitor as needed. WARNING: Capacitor has a stored charge, discharge before testing.
	Switch, conveyor reversing	Check continuity between switch terminals. Replace as needed.
	Oven control	If there is 120VAC supplied to the motor, and the motor, capacitor, and reversing switch check good, replace the oven control.
Conveyor motor runs, but there is no speed display	NOTE: Display will indicate “BELT JAM”	
	Oven control	Check for output voltage from oven control to hall effect sensor (sensor is located in conveyor motor). Measure voltage at the motor connector, red wire and yellow wire. Voltage should be approx. 10VDC. If no voltage is present, trace wiring back to oven control. If there is no voltage present at the oven control, replace the oven control.
	Conveyor motor	If there is voltage supplied to the hall effect sensor, check for a frequency output from the hall effect sensor. Measure frequency across the yellow and white wires at the motor connector. Frequency reading should be approx. 25 – 100 Hz. If these readings are not achieved, replace conveyor motor. If these readings are achieved, proceed.
	Oven control	If the hall effect sensor readings are correct, but there is no speed indicated on the display, replace the oven control.

REMOVAL, INSTALLATION & ADJUSTMENTS

IMPINGER ADVANTAGE SERIES

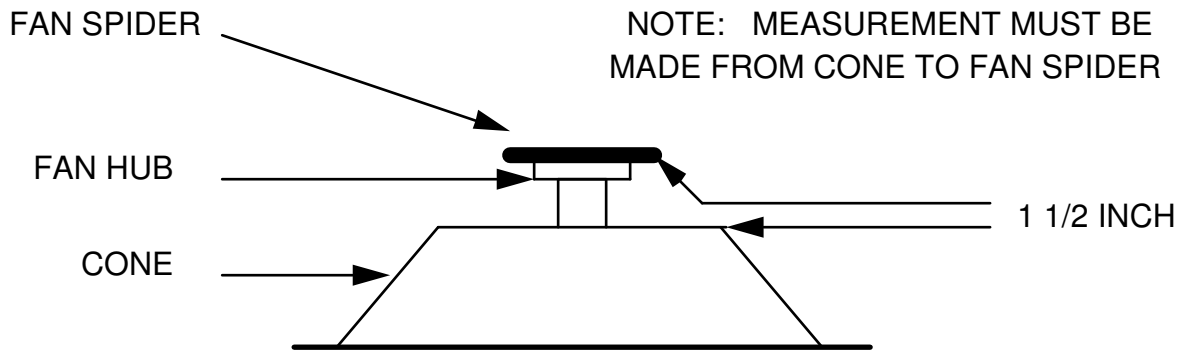
CAUTION!
BEFORE REMOVING OR INSTALLING ANY COMPONENT IN THE IMPINGER OVEN BE SURE TO DISCONNECT ELECTRICAL POWER AND GAS SUPPLY

MOTOR, MAIN FAN - REPLACEMENT

1. Shut off power at main breaker.
2. Remove louvered motor cover from back of oven.
3. Remove wireway by taking out the (5) five hex screws.
4. Disconnect wiring from motor.
5. Remove the twelve (12) hex head bolts from the oven back and slide back straight out of the oven.
6. Remove two (2) bolts from fan hub and remove fan from motor shaft.
   NOTE: Measure distance from fan blade to rear wall assembly before removal to aid in reassembly.
7. Remove the eight (8) hex head bolts from the motor mount and slide the motor assembly out of the oven back.
8. Remove motor by taking off motor clamp and removing the four (4) mounting nuts and washers.
9. Reassemble in reverse order. When motor mount assembly is set on the oven back, align motor shaft in the center of the hole. Set fan assembly on the motor shaft.
   NOTE: A. Torque specs on bolts (150 in/lb. torque)
   B. It is recommended that an anti-seize compound be brushed on to the bolts around the back and motor mount bracket before assembly.

FAN, MAIN - REPLACEMENT

1. Shut off power at main breaker.
2. Remove back assembly. (See MOTOR, MAIN FAN)
3. Reinstall and locate fan so that the bottom of the fan spider is 1 1/2" from the top of the oven back cone. (See Drawing)



CAPACITOR, MOTOR - REPLACEMENT

1. Shut off power at main breaker.
2. Remove motor cover from back of oven.
3. Discharge capacitor.
4. Remove and replace.

COOLING FAN, CONTROL BOX - REPLACEMENT

1. Shut off power at main breaker.
2. Remove control panel top and front cover.
3. Remove four (4) screws from the fan frame.
4. Disconnect cord and plug and remove fan.
5. Reassemble in reverse order.

THERMOSTAT, COOLING FAN - REPLACEMENT

1. Shut off power at main breaker.
2. Remove control panel top and front cover.
3. Remove lead wires and mark for reassembly.
4. Remove two (2) screws and remove thermostat.
5. Reassemble in reverse order.

BURNER BLOWER MOTOR - REPLACEMENT

1. Shut off power at main breaker.
2. Remove control panel top and front cover.
3. Unplug motor connector.
4. Remove three (3) screws from blower tube at burner housing.
5. Remove air shutter assembly from old motor for installation on new motor assembly.
6. Reassemble in reverse order and check system operation.
   NOTE: Check air shutter adjustment and adjust if necessary. Set air shutter at approx. 1/4" and adjust to get a blue flame with an occasional tip of yellow under high flame. A view port in the burner assembly should be used to observe flame.

BLOWER WHEEL, BURNER

This is part of the burner blower motor assembly.

TO REMOVE THE BLOWER WHEEL FOR PERIODIC CLEANING:

1. Shut off power at main breaker.
2. Remove control panel top and front cover.
3. Remove air shutter held by 3 screws.
4. Loosen set screws on blower wheel hub and pull straight out.
5. Reassemble in reverse order.
   NOTE: There is no critical placement of the blower wheel on the motor shaft. Just back as far as it will go and then spin the blower to be sure it is not rubbing.

BURNER CONTROL - REPLACEMENT

1. Shut off power at main breaker.
2. Remove control panel top and front cover.
3. Remove wires from control, note wire numbers and location for reassembly.
4. Remove Two (2) screws from control and replace.
5. Reassemble in reverse order and check system operation.

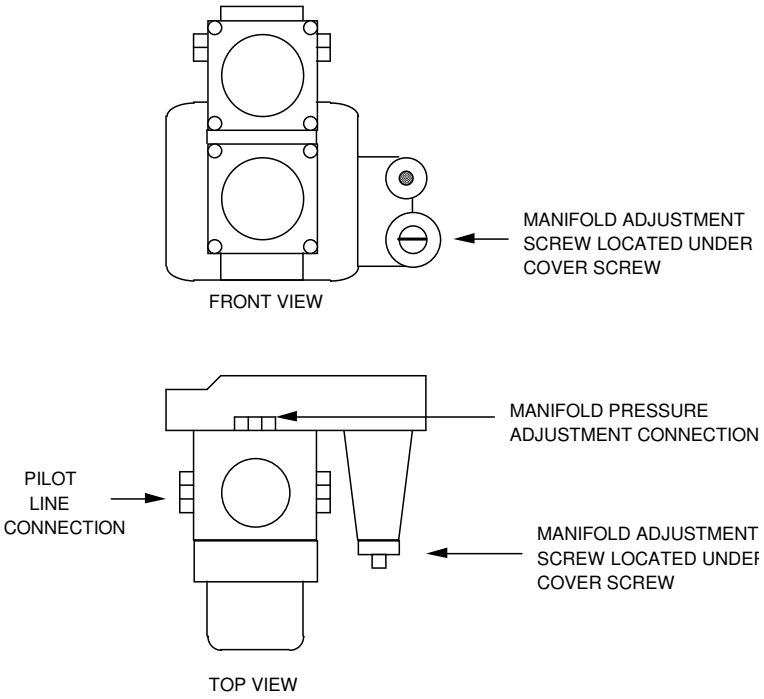
BURNER ASSEMBLY

1. Shut off power at main breaker.
2. Shut off gas supply.
3. Remove control panel top and front panel.
4. Remove gas control valve (See "GAS CONTROL VALVE")
5. Disconnect pilot tube.
6. Remove solenoid valve. (See "TEMPERATURE REGULATION VALVE")
7. Remove four (4) screws that secure the burner backing plate.
8. Remove burner assembly from housing, the main and pilot orifice, flame target, pilot shield (main and extension), burner ignitor can now be changed or serviced as needed.
9. Reassemble in reverse order. Check all gas line fittings for leaks.

GAS CONTROL VALVE - REPLACEMENT

1. Shut off power at main breaker.
2. Shut off gas supply.
3. Remove control panel top and front cover.
4. Disconnect the gas piping from the back of the unit.
5. Remove the four(4) screws from the incoming nipple mounting bracket.

6. Remove incoming nipple.
7. Remove pilot tube assembly from control valve.
8. Disconnect pipe union just above solenoid valve.
9. Disconnect wiring from control valve making note of wire numbers and location. Remove piping from old valve for installation on new valve.
10. Reassemble in reverse order - after assembly is complete, be sure to check manifold pressure (3.5" W.C. NAT GAS 10" W.C. LP) and adjust if necessary. (See Section "MANIFOLD PRESSURE - ADJUSTMENT")
    NOTE: Check all gas line fittings for leaks after installation.


MANIFOLD ADJUSTMENT SCREW LOCATED UNDER COVER SCREW
FRONT VIEW
MANIFOLD PRESSURE ADJUSTMENT CONNECTION
PILOT LINE CONNECTION
MANIFOLD ADJUSTMENT SCREW LOCATED UNDEF COVER SCREW
TOP VIEW

MANIFOLD PRESSURE - ADJUSTMENT

1. Remove control panel top and front cover.
2. WITH ELECTRIC POWER AND GAS OFF: Remove the outlet pressure tap plug from the gas control valve and install the adapter fitting and manometer.
3. Turn on electric power and gas and start-up oven.
4. With oven at full fire, manifold pressure should be (3.5" W.C. NAT/ 10" W.C. LP). If adjustment is needed, remove cover screw from valve body and adjust by turning regulator screw. (C.W. to increase, C.C.W. to decrease).
5. Turn off electric power and gas, replace cover screw, remove manometer and adapter; Replace pressure tap plug.
6. Check pressure tap for gas leaks before closing panel.
7. Close control panel and check system operation.

TEMPERATURE REGULATION VALVE - REPLACEMENT

1. Shut off power at main breaker.
2. Shut off gas supply.
3. Remove control panel top and front cover.
4. Remove gas control valve (See "GAS CONTROL VALVE")
5. Disconnect wires from temperature regulation valve.
6. Remove two (2) hex nuts that hold main orifice bracket in place.
7. Remove temperature regulation valve assembly.
8. Remove piping from temperature regulation valve.
9. Reassemble in reverse order.
10. Check all fittings for leaks.

BURNER IGNITOR - REPLACEMENT

1. Shut off power at main breaker.
2. Remove control panel top and front cover.
3. Remove burner assembly. (SEE "BURNER ASSY.")
4. Remove pilot shield and pilot shield extension.
5. Remove burner ignitor.
6. Reassemble in reverse order (spark gap approx. .100 in. or 2.5 mm)
   NOTE: Be sure to reconnect burner ignitor cable to ignition control.

THERMOCOUPLE - REPLACEMENT

1. Shut off power at main breaker.
2. Remove control panel top and front cover.
3. Slide thermocouple out of oven chamber.
   NOTE: Remove conveyor and bottom fingers to aid in removal and installation of thermocouple.
4. Remove two (2) wires from temperature control. Make note of wire numbers or color and location for reinstallation.
5. Reassemble in reverse order making sure the metal end on the thermocouple is in the wire form in the oven chamber.

THERMOCOUPLE MEASURMENT

TEMPERATURE	D.C. MILLVOLTS (APPROX.)
200°	2.8
250°	4.0
300°	5.1
350°	6.0
400°	7.1
450°	8.2
500°	9.3
550°	10.4
600°	11.5

BURNER CONTROL TRANSFORMER - REPLACEMENT

1. Shut power off at main breaker.
2. Remove control panel top and front cover.
3. Remove two (2) wires on primary side, note color and location.
4. Remove two (2) wires on secondary side, note color and location.
5. Remove two (2) screws from transformer base and replace assembly.
6. Reinstall in reverse order and check system operation.

CONTROL TRANSFORMER – REPLACEMENT

See “BURNER CONTROL TRANSFORMER – REPLACEMENT”

CONVEYOR DRIVE MOTOR - REPLACEMENT

1. Shut power off at main breaker.
2. Remove control panel top and front cover.
3. Loosen set screw on conveyor drive sprocket and slide sprocket off shaft.
4. Disconnect motor plug.
5. Remove four (4) screws from motor frame, on control box side, and remove motor assembly.
6. Reassemble in reverse order making sure to align chain sprockets and adjust motor for proper chain tension (1/2" SAG).

REVERSING CONVEYOR DIRECTION

All ovens leaving our plant are wired to operate conveyors from left to right. To reverse conveyor direction, use the following procedure.

1. Shut off power at oven switch.
2. Set conveyor reversing switch in the other position.
3. Turn oven “on” and check for proper operation.

MAIN ORIFICE - REPLACEMENT

1. Shut off power at main breaker.
2. Remove control panel top and front panel.
3. Remove gas control valve assy.
4. Remove two (2) nuts from burner orifice bracket.
5. Disconnect pipe union.
6. Remove assembly and replace main orifice.
7. Reassemble in reverse order and check system operation. NOTE: Check all gas line fittings for leaks.

PILOT ORIFICE - REPLACEMENT

1. Shut off power at main breaker.
2. Shut off gas supply.
3. Remove burner assembly (See "Burner Assembly").
4. Remove pilot line from pilot orifice.
5. Remove pilot orifice from burner ignitor.
6. Reassemble in reverse order. NOTE: Check all gas line fittings for leaks.

ON-OFF SWITCH - REPLACEMENT

1. Shut off power at main breaker.
2. Remove control box cover.
3. Remove access cover.
4. Depress spring clips on side of switch and push out.
5. Remove wires from back of switch, note wire number and location.
6. Reassemble in reverse order and check system operation.
   NOTE: Make sure switch housing is fully seated in control box housing.

OVEN CONTROL – REPLACEMENT

A. Shut off power at main breaker.
B. Remove control box cover and front panel.
C. Remove all wiring connections and mark for reassembly.
D. Remove oven control by pulling control from the mounting pins. Remove control from oven.
E. Before installing new oven control, set voltage jumper (located at the bottom center of the oven control) to the proper voltage (120V/240V) position. Install the four pushbutton extensions (included with the oven control) by pushing the extensions onto the four set buttons on control.
F. Reassemble in reverse order and check system operation.
G. Set the oven control for the proper operating mode. The 1400 series ovens use a single temperature control system. The oven control must be set to the proper operating mode. Set the control as follows: With the oven power switch “off”, depress the “time” and “up” buttons and turn the oven “on”. Control will indicate “Imp I or Imp II” Release the buttons, The control will indicate “Temp to store”. Press the “up” or “down” button until “Imp I” appears on the display. Press the “temp” button. The control is now set for single burner operation.

FUSE HOLDER – REPLACEMENT

1. Shut off power at main breaker.
2. Remove control box cover.
3. Remove all wiring from fuse holder and mark for reassembly.
4. Remove mounting nut for fuse holder and remove fuse holder.
5. Reassemble in reverse order and check system operation.

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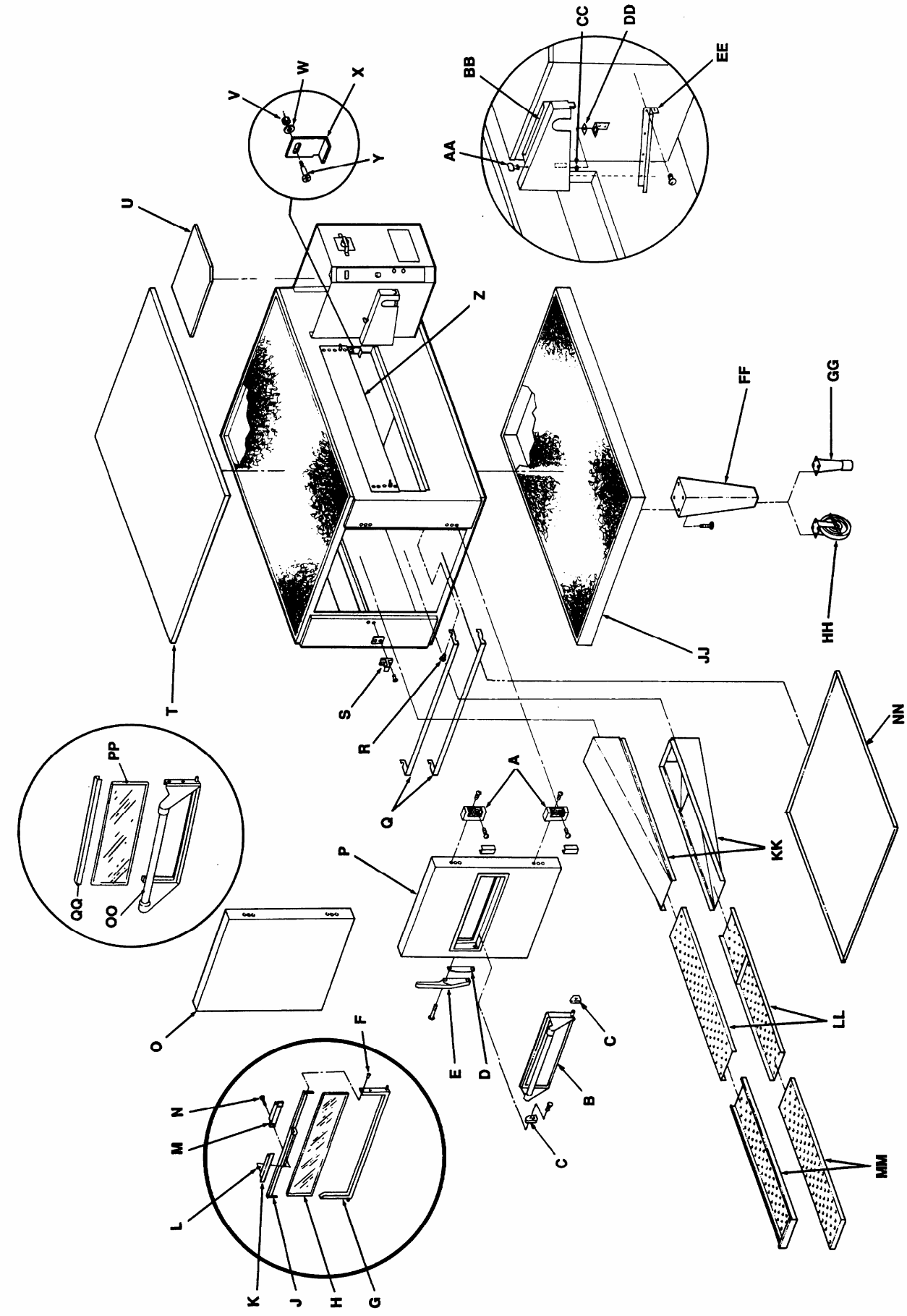
GENERAL VIEW
ADVANTAGE SERIES

LETTER	PART NUMBER	DESCRIPTION
A	369003	Door hinge
B	369110	Access window assembly
C	369337	Retainer (old style)
	369929	Retainer (new style)
D	369828	Handle spacer
E	369209	Latch & strike
F	369310	Screw, 6-32 x 3/16”
G	369308	Bottom, access window
H	369334	Access door glass
J	369309	Top, access window
K	350638	Handle
L	369311	Handle spacer (2 req.)
M	369336	Door latch
N	369906	Screw, 8-32 x 5/8”
O	370110	Door assembly (solid)
P	369157	Door assembly (with window)
Q	1534	Finger support assembly
R	369057	Support bracket pin
S	369643	Strike assembly
T	1009	Oven top
U	369062	Top, control box
V	369140	Compression spring
W	369903	Washer, flat
X	369141	Conveyor hold down bracket
Y	369139	Shoulder screw
Z	369058	Baffle, inlet and outlet
*	369211	Thumb screw (not shown)
AA	369203	Stud, wing head
BB	369749	Chain cover kit (includes AA, CC)
CC	369204	Split ring retainer
DD	369373	Receptacle, snap –in
EE	369748	Bracket, chain cover
FF	369328	Leg, stand
GG	369052	Adjustable leg
HH	369030	Caster, 6”
JJ	369904	Insulation holder assembly
KK	369053	Finger housing
LL		Columnating plates – see installation operations manual
MM	369055	Finger cover
NN	369218	Crumb pan, internal
OO	369926	Window frame, bottom
PP	369925	Glass, access window
QQ	369927	Window frame, top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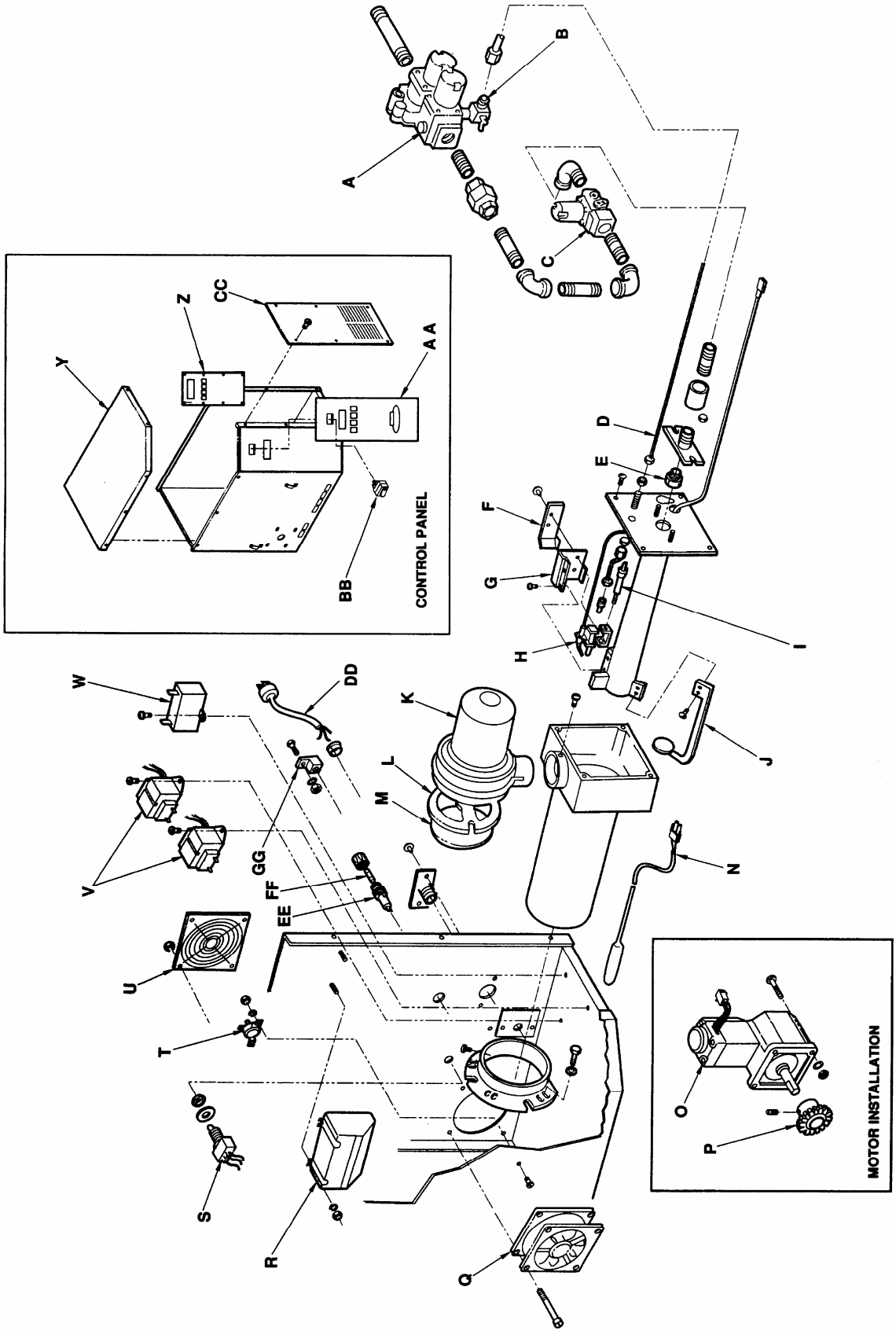
CONTROL BOX – 1450, 1451
S/N N28654 and ABOVE

LETTER	PART #	DESCRIPTION
A	369263	Gas Valve
B	369344	Pilot Shut Off Valve
C	369398	Solenoid Valve Nat/LP
D	370059	Manifold, Burner
E	369072	Main Orifice, Nat.
	369099	Main Orifice, L.P.
F	369144	Pilot Shield Extension
G	369202	Pilot Shield, Main
H	369076	Burner Igniter
I	369075	Flame Sensor
J	369142	Flame Target
K	369366	Burner Blower Motor
L	369399	Air Shutter
M	369400	Plate, Air Shutter
N	370362	Thermocouple, Type K
O	370368	Conveyor Motor
P	369158	Sprocket, Drive
Q	369124	Cooling Fan
R	369393	Ignition Control
S	370359	Reversing Switch
T	369507	Control Box Thermostat
U	369331	Finger Guard, Cooling Fan
V	369531	Transformer, 24 VAC
W	370352	Capacitor, Conveyor motor
Y	370418	Top, Control Box
Z	370355	Control, Oven
AA	370354	Facia, Front
BB	369805	Switch, On-Off
CC	370363	Front Cover
DD	369537	Power Cord
EE	369129	Fuse Holder
FF	369166	Fuse, 10 A
GG	353014	Ground Lug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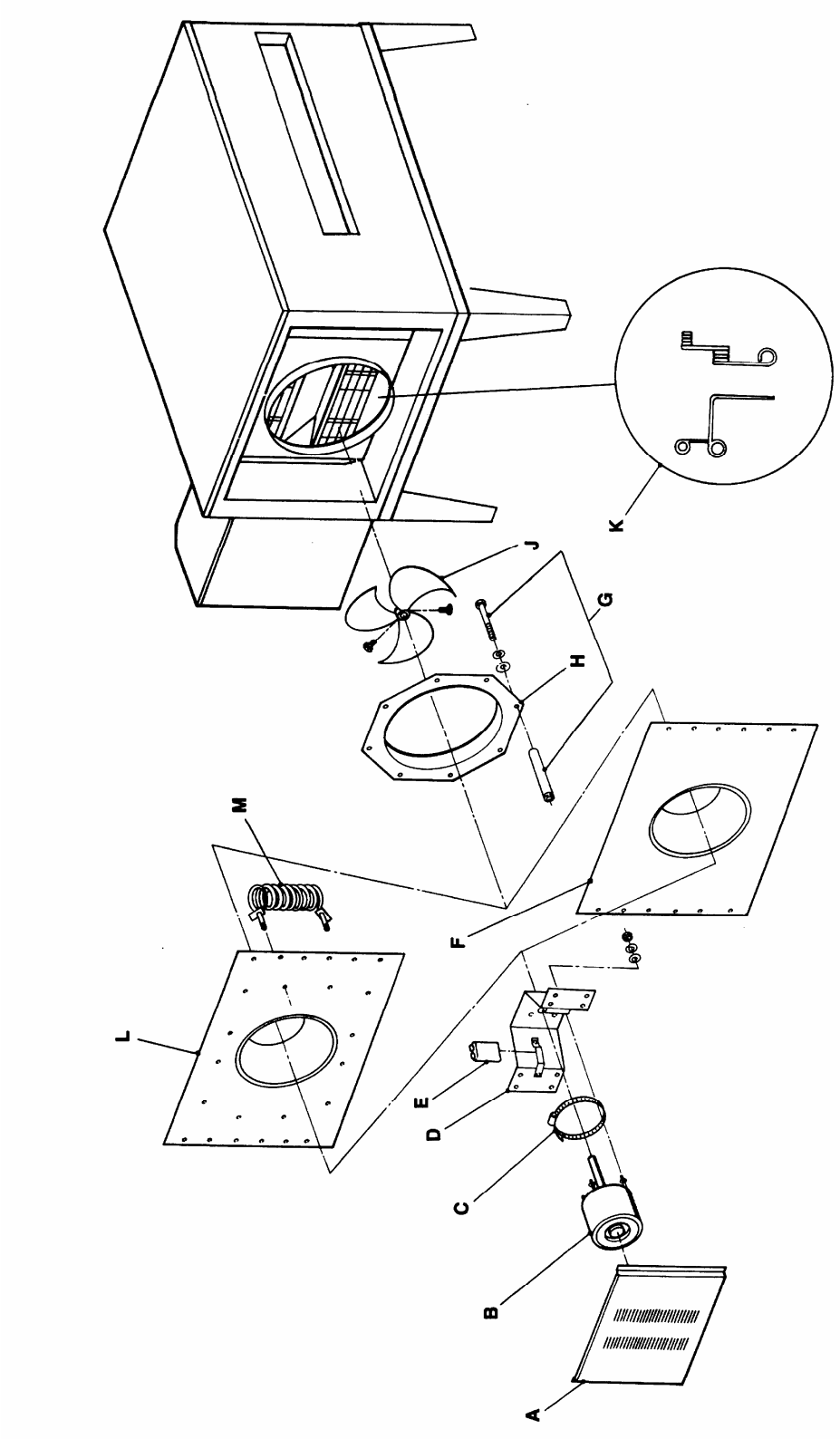
CONTROL PANEL
MOTOR INSTALLATION

OVEN BACK
ADVANTAGE SERIES
GAS AND ELECTRIC

LETTER	PART NUMBER	DESCRIPTION
A	369808	Cover, motor (gas ovens)
	370140	Cover, motor (electric ovens)
B	369800	Motor, main fan (60 Hz.)
	369214	Motor, main fan (50 Hz.)
C	369033	Motor clamp
D	369215	Motor support assembly
E	369192	Capacitor, 7.5 MFD
F	369306	Oven back assembly, gas oven
G	369646	Stand-off
H	369647	Inlet panel
J	369213	Main fan
K	369547	Bracket, thermostat
M	369287	Heating element, 208V
	369315	Heating element, 220V
	369122	Heating element, 240V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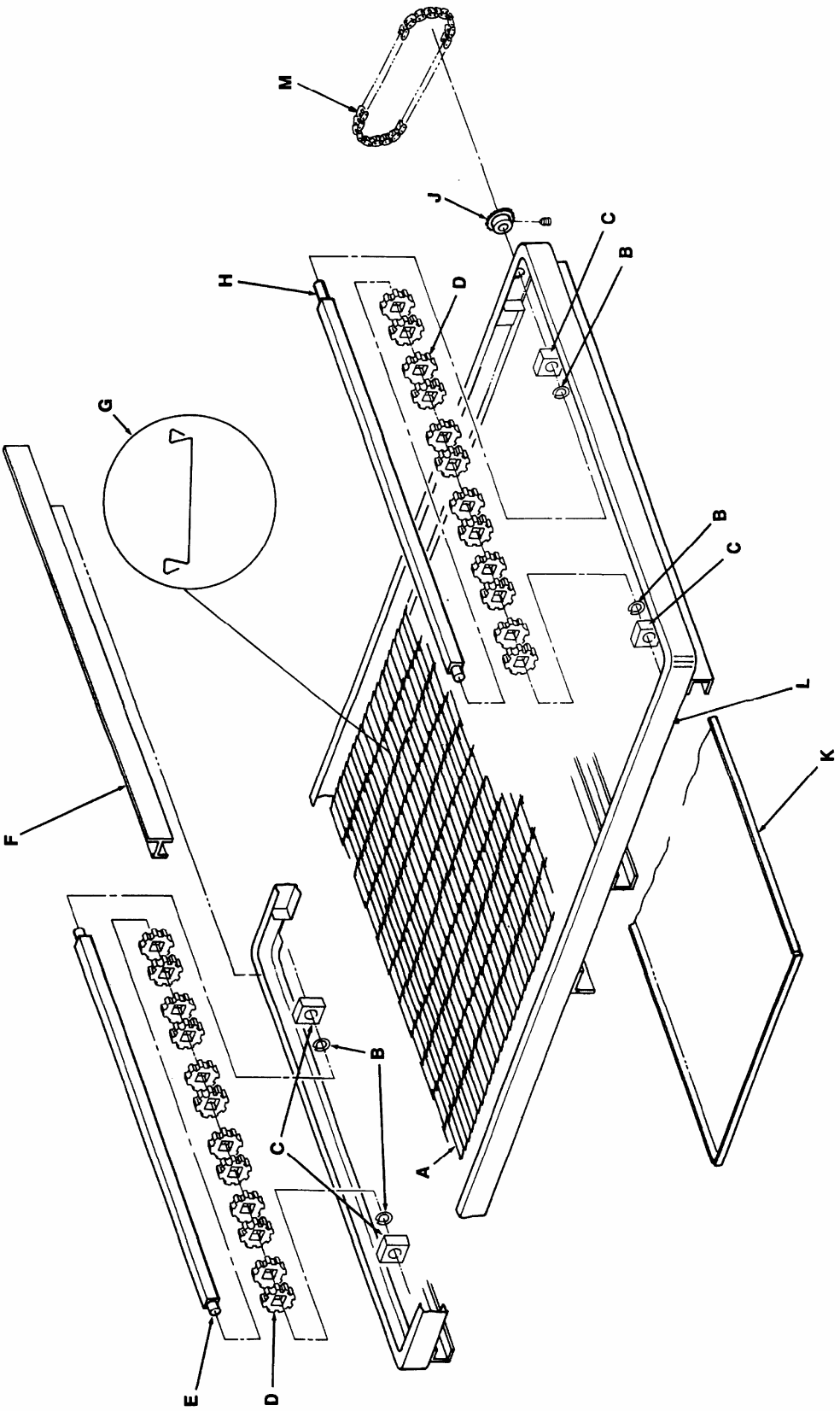
CONVEYOR
1450 SERIES

LETTER	PART NUMBER	DESCRIPTION
	369830	Complete conveyor assembly
A	369816	Conveyor belt
	370092	Conveyor belt, 1 foot section
B	369825	Retaining ring
C	369813	Conveyor bearing block
D	369314	Roll, conveyor, notched
E	369812	Conveyor idler shaft
F	369160	Conveyor pan stop
G	369814	Connecting link
H	369811	Conveyor drive shaft
J	369161	Roller chain sprocket
K	369806	Crumb pan
L	370050	Conveyor frame
M	369162	Drive chain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Lincoln

Enodis
STAR
CERTIFIED
SERVICE AND PARTS